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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,031	02/19/2002	Rudolf Singer	13179	6398
23719	7590	09/14/2004	EXAMINER	
KALOW & SPRINGUT LLP 488 MADISON AVENUE 19TH FLOOR NEW YORK, NY 10022			HUG, ERIC J	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/079,031	SINGER, RUDOLF	
	Examiner	Art Unit	
	Eric Hug	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Petro (US 4,162,152). Petro discloses a glass melting furnace having a funnel-shaped orifice (14), insulating wall (16), and a metering device (44) aligned and in contact with the lower cylindrical portion of the orifice. See Figures 1 and 6, and see column 3, line 33 to column 4, line 45 for description of the metering device. The metering device comprises an electrically conductive metal member (46) in the shape of a ring. The metal member is heated to control the flow of molten glass through the orifice. The metal member is integral with a hollow member (47) that is aligned with the orifice. The insulating wall is provided with an annular shaped slot (45) spaced from the orifice. A lip member (54) fits into the slot. Two electrical contact members (60, 60a) are connected to the device, which are arranged on opposite sides of the orifice, 180 degrees apart. The metal member is made of platinum (column 3, lines 59-61).

Regarding the claims, the orifice and its shape reads on the claimed delivery nozzle. The platinum material reads on the claimed platinum group metal. The insulating wall reads on the claimed ceramic component. The metal member reads on the claimed cylindrical heating ring. The two electrical contact members read on the claimed two current feed sheets. Regarding the

Art Unit: 1731

other claimed features, there are clearly upper and lower flanged rings in the drawings. There is also clearly a take-off bar at the distal end of the cylindrical portion of the orifice.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perkins (US 4,565,559). Perkins discloses a drain bushing (1) for molten glass made of platinum or a platinum alloy with a holding portion (2), an outlet (3), and an outlet nozzle (orifice 4). The platinum wall surface (6) extends to the orifice (see drawing), therefore the orifice is also made of platinum. An electrical barrier (5) encompasses the orifice and is outside of the electrical barrier. An electrical heating element (7) surrounds the electrical barrier. The heating element provides energy to the orifice to maintain the flow of molten glass through the orifice. The heating element can be made from a platinum material or be made from an alloy that forms a resistant scale in which the scale serves as the insulating barrier (5), precluding the need for a separate barrier material, in which case the heating element is proximate to the orifice. Absent from the drawing in Perkins is a ceramic component about the heating element. However, a ceramic component (refractory) is a necessary feature in a molten glass furnace to provide insulation at high processing temperature and prevent loss of heat to the surrounding

Art Unit: 1731

environment. Therefore, at the time of the invention, it would have been obvious to one skilled in the art to include a ceramic component about the heating element of Perkins in order to insulate the heated regions. The inclusion of this necessary ceramic component in Perkins would provide all the claimed features.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DiFrank (US 4,950,321)

Kojo et al (US 3,817,736)

Stevenson (US 3,554,727)

Keefer (US 3,508,904)

Chapman et al (US 3,160,492)

Howard (US 1,680,543)

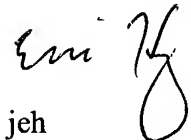
Peiler (US 1,622,666)

Art Unit: 1731

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192. The examiner can normally be reached on Monday through Friday, 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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